

REMARKS

The Office Action dated January 21, 2009 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-6, 11-18, 21, 27, 30-33, and 35-36 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 7-10, and 24-25 were previously cancelled. New claim 37 has been added. Support for the amendment may be found in the specification, for example, at paragraphs 0109-0113 and Figure 5. No new matter has been added. Therefore, claims 1-6, 11-23, and 26-37 are currently pending in the application and are respectfully submitted for consideration.

Claim Rejections Under 35 U.S.C. § 112, First Paragraph

The Office Action rejected claims 33-34 and 36 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the Office Action alleged that the claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This rejection is respectfully traversed for at least the following reasons.

Applicants respectfully submit that that the specification provides support for the limitation “*computer program embodied on a computer readable medium,*” and that the

aforementioned limitation is not new matter. In the Office Action, the Examiner stated that “[t]he definition for NEW MATTER is not about what one of ordinary skill in the art would readily understand; rather it is about subject matter in amended cases not disclosed in the original application as filed.” (See Office Action at page 3). Applicants respectfully disagree, and submit that the knowledge of one of ordinary skill in the art is very relevant to the definition for new matter. Specifically, under *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991), the Federal Circuit held that to satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention, and that the invention, in that context, is whatever is now claimed. Thus, the mere fact that a phrase does not appear, word-for-word, in the specification, does not necessarily mean that the phrase is new matter when added to a claim, if one of ordinary skill in the art would understand that the phrase merely conveys subject matter which one of ordinary skill in the art would understand was in an applicant’s possession, at the time the application was filed.

Furthermore, Applicants respectfully submit that “*a computer program embodied on a computer readable medium*” is not new matter because the specification does describe the aforementioned limitation in a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention. For example, the specification, at paragraph 0082 discloses that the base band unit 206 includes a digital signal processor, memory and software, and performs digital signal processing. The base

band unit 206 may perform tasks of the requesting means, connecting means 106, signaling means 110, and the second signaling means 134. The signaling means 110 and the second signaling means 134 may be implemented with software applications. (See e.g. Specification at paragraph 0082). Thus, the specification describes software, which is a form of a computer program, and the specification describes memory, which is a form of a computer readable medium. Therefore, one skilled in the art would understand from the disclosure that the inventors had possession of the subject matter “*computer program*” and “*computer readable medium*.” Accordingly, Applicants respectfully request that this rejection be withdrawn.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

The Office Action rejected claims 5 and 12 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Office Action alleged that the use of the term “some” in claims 5 and 12 renders the claim indefinite because “some” is a relative term not defined by the claims, and the specification does not provide a standard for ascertaining the requisite degree. Furthermore, the Office Action alleged that there is insufficient antecedent basis for the limitation “the at least some” in claim 12. (See Office Action at pages 3-4).

Applicants respectfully submit that claims 5 and 12 have been amended to recite “*at least one of the proximity signaling parameters*,” rather than “*at least some of the*

proximity signaling parameters,” and claim 12 has been amended to delete the word “*the.*” Applicants further submit that the claim amendments effectively moot the rejection, and request that the rejection be withdrawn.

Claim Rejections Under 35 U.S.C. § 103(a)

The Office Action rejected claims 1-4, 6, 11, 13-21, 23, 27, and 29-36 under 35 U.S.C. §103(a) as allegedly being unpatentable over Ratert, *et al.* (U.S. Patent Publication No. 2004/0142684) (“Ratert”) in view of Chen (U.S. Patent No. 7,010,268) (“Chen”). The Office Action took the position that Ratert discloses all the elements of the claims with the exception of “requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal; generating signaling parameters for controlling the radio link; and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal,” and certain other elements. The Office Action then cited Chen as allegedly curing the deficiencies of Ratert. Applicants respectfully submit that said claims recite allowable subject matter for at least the following reasons.

Claim 1, upon which claims 2-5 and 22-23 are dependent, recites a method, which includes connecting a subscriber terminal of a wireless telecommunications system to an infrastructure of the wireless telecommunications system over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system, and connecting the subscriber terminal to at least one sub-terminal over a

proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The method further includes requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, and generating signaling parameters for controlling the radio link. The method further includes communicating at least one of the signaling parameters between the at least one sub-terminal and the infrastructure. The subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously.

Claim 6 recites a system, which includes a subscriber terminal and at least one sub-terminal, wherein the subscriber terminal includes a connecting unit configured to connect the subscriber terminal to a infrastructure of a wireless telecommunications system and a subscriber identity unit configured to hold a subscriber identity of the subscriber terminal in the wireless telecommunications system. The at least one sub-terminal uses the subscriber identity of the subscriber terminal and includes a receiving unit configured to provide a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signaling parameters. The subscriber terminal includes a requesting unit operationally connected to the connecting unit, configured to request the radio link, and the system includes a signaling unit operationally connected to the connecting unit, configured to communicate at least one of the signaling parameters between the subscriber terminal and the infrastructure. The system includes a proximity signaling unit operationally connected to the signaling unit, configured to communicate the at least one of the signaling parameters between the

subscriber terminal and the at least one sub-terminal over a proximity wireless interface, and the subscriber terminal and the at least one sub-terminal are connected to the infrastructure simultaneously.

Claim 11, upon which claims 12 and 26-27 are dependent, recites an apparatus, which includes a connecting unit configured to connect the apparatus to an infrastructure of a wireless telecommunications system, and a subscriber identity unit configured to hold a subscriber identity of the apparatus in the wireless telecommunications system. The apparatus further includes a requesting unit operationally connected to the connecting unit, configured to request a radio link directed from the infrastructure to at least one sub-terminal, the at least one sub-terminal using the subscriber identity of the apparatus, the radio link being controlled on the basis of signaling parameters, and a proximity signaling unit configured to communicate at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface. The apparatus further includes a signaling unit operationally connected to the connecting unit and the proximity signaling unit, configured to communicate the at least one of the signaling parameters between the apparatus and the infrastructure. The apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal.

Claim 13, upon which claims 14-17 and 28 are dependent, recites an apparatus, which includes a receiving unit configured to provide a radio link directed from an infrastructure of a wireless telecommunication system, to the apparatus, the apparatus

being operationally connected to the infrastructure and holding a subscriber identity in the wireless telecommunications system, the apparatus using the subscriber identity of a subscriber terminal and, the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal. The apparatus further includes a proximity signaling unit configured to communicate at least one of the signaling parameters between the subscriber terminal and the apparatus over a proximity wireless interface. The apparatus is configured to be in connection with the infrastructure simultaneously with the subscriber terminal.

Claim 18, upon which claims 19-21 and 29 are dependent, recites an apparatus, which includes an access control unit configured to control access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system, the subscriber terminal being operationally connected to the infrastructure and the access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal and the subscriber terminal holding the subscriber identity in the wireless telecommunications system, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The apparatus further includes a controlling unit operationally connected to the access control unit, configured to control a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signaling parameters, and a signaling unit configured to communicate at least one of

the signaling parameters between the infrastructure and the subscriber terminal, the at least one of the signaling parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface.

Claim 30 recites an apparatus, which includes connecting means for connecting the apparatus to an infrastructure of a wireless telecommunications system, and subscriber identity means for holding a subscriber identity of the apparatus in the wireless telecommunications system. The apparatus further includes requesting means for requesting a radio link directed from the infrastructure to at least one sub-terminal, the at least one sub-terminal using the subscriber identity of the apparatus, the radio link being controlled on the basis of signaling parameters, and proximity signaling means for communicating at least one of the signaling parameters with the at least one sub-terminal over a proximity wireless interface. The apparatus further includes signaling means for communicating the at least one of the signaling parameters between the apparatus and the infrastructure. The apparatus is configured to be in connection with the infrastructure simultaneously with the at least one sub-terminal.

Claim 31 recites an apparatus, which includes receiving means for providing a radio link directed from an infrastructure of a wireless telecommunication system, to the apparatus, the apparatus being operationally connected to the infrastructure and holding a subscriber identity in the wireless telecommunications system, the apparatus using the subscriber identity of a subscriber terminal and, the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the

infrastructure, the radio link being requested by the subscriber terminal. The apparatus further includes proximity signaling means for communicating at least one of the signaling parameters between the subscriber terminal and the apparatus over a proximity wireless interface. The apparatus is configured to be in connection with the infrastructure simultaneously with the subscriber terminal.

Claim 32 recites an apparatus, which includes access control means for controlling access of at least one sub-terminal to an infrastructure of a wireless telecommunications system on the basis of an access request from a subscriber terminal of the wireless telecommunications system, the subscriber terminal being operationally connected to the infrastructure and the access of the at least one sub-terminal being simultaneous with the connection of the subscriber terminal and the subscriber terminal holding the subscriber identity in the wireless telecommunications system, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The apparatus further includes controlling means for controlling a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signaling parameters, and signaling means for communicating at least one of the signaling parameters between the infrastructure and the subscriber terminal, the at least one of the signaling parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface.

Claim 33, upon which claim 34 is dependent, recites a computer program embodied on a computer medium, for controlling a computer to perform a method. The

method includes connecting a subscriber terminal of a wireless telecommunications system to an infrastructure of the wireless telecommunications system over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system, and connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The method further includes requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, and generating signaling parameters for controlling the radio link. The method further includes communicating at least one of the signaling parameters between the at least one sub-terminal and the infrastructure via the subscriber terminal, and being in connection with the infrastructure simultaneously with the at least one sub-terminal.

Claim 35 recites a method, which includes connecting a subscriber terminal to an infrastructure over a wireless interface, the subscriber terminal holding a subscriber identity, and connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The method further includes requesting a radio link, at the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, and receiving signaling parameters for controlling the radio link. The method further includes communicating at least one of the signaling parameters between

the at least one sub-terminal and the infrastructure via the subscriber terminal, and being in connection with the infrastructure simultaneously with the at least one sub-terminal.

Claim 36 recites a computer program, embodied on a computer-readable medium, for controlling a processor to implement a method. The method includes connecting a subscriber terminal to an infrastructure over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system, and connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The method further includes requesting a radio link, at the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, and receiving signaling parameters for controlling the radio link. The method further includes communicating at least one of the signaling parameters between the at least one sub-terminal and the infrastructure via the subscriber terminal, and being in connection with the infrastructure simultaneously with the at least one sub-terminal.

Claim 37 recites a method, which includes providing a radio link directed from an infrastructure of a wireless telecommunication system, holding a subscriber identity in the wireless telecommunications system, the subscriber identity being the identity of a subscriber terminal, the radio link being controlled on the basis of signaling parameters communicated between the subscriber terminal and the infrastructure. The method further includes communicating at least one of the signaling parameters to the subscriber

terminal over a proximity wireless interface, and being in connection with the infrastructure simultaneously with the subscriber terminal.

As will be discussed below, the combination of Ratert and Chen fails to disclose or suggest all of the elements of the claims, and therefore fails to provide the features discussed above.

Ratert describes a communication system which includes first and second communication devices capable of communicating with a telecommunications network. The first communication device includes identification information, and the second communication device is capable of remotely acquiring some of the identification information of the first communication device. The second communication device is further capable of acquiring connection parameters from the first communication device and applying the acquired parameters to effect a connection to the network. (See Ratert at paragraph 0008).

Chen describes a far end remote control method and system, by a short message and Bluetooth function operation, to control output/input devices at a far end. The system includes a cellular phone, controlling device and controlled devices. The method includes the following steps. A cellular phone transmits a short message control command to a controlling device through a cellular phone network. The controlling device searches a controlled device appointed in the command. The controlling device builds a Bluetooth Serial Port Profile connection with the controlled device after the appointed controlled device is found. The controlling device controls an output or input

device after receiving the command. The controlled device transmits an execution result back to the controlling device. The controlling device reports the execution result back to the cellular phone by a short message. The controlling device disconnects the connection with the controlled device and waits for a next control command after the report is completed. (See Chen at Abstract).

Applicants respectfully submit that Ratert and Chen, whether considered individually or in combination, fail to disclose, teach, or suggest, all of the elements of the present claims. For example, the combination of Ratert and Chen fails to disclose, teach, or suggest, at least, *“the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously,”* as recited in independent claim 1, and similarly recited in independent claims 6, 11, 13, 18, 30-33, and 35-37.

As described above, Ratert describes a communication system which includes first and second communication devices capable of communicating with a telecommunications network. Specifically, Ratert identifies a pair of radiotelephones (100 and 108 as shown in Figure 1, and 200 and 208 as shown in Figure 2), which are capable of communication with a telecommunications network (116 as shown in Figure 1, and 216 as shown in Figure 2). (See Ratert at paragraph 0016; Figures 1 and 2). Ratert explicitly states that the radiotelephones do not have a simultaneous connection with the network. Specifically, Ratert discloses that the GSM standard does not permit devices having the same SIM to be active on the network, therefore the first radiotelephone must be made passive before making the second radiotelephone active.

Thus, before radiotelephone 208 is made active and establishes a connection with the telecommunications network 216, radiotelephone 200 is made passive. (See Ratert at paragraphs 0017-0018 and 0020-0021). Because Ratert fails to disclose that the radiotelephones have a simultaneous connection with the network, Ratert clearly fails to disclose, or suggest, *“the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously,”* as recited in independent claim 1.

Furthermore, Chen does not cure the deficiencies of Ratert. As described above, Chen discusses a system which includes a cellular phone, controlling device and controlled devices. Specifically, Chen states that a cellular transmits a short message control command to a controlling device 2 through a cellular phone net 4. The controlling device then sends the short message control command to the controlled device 3 via a Bluetooth Serial Port Profile connection. Similar to Ratert, Chen fails to disclose, or suggest, that the controlling device 2 and controlled device 4 are simultaneously connected with an infrastructure. Thus, Chen also fails to disclose, or suggest, the aforementioned limitation of claim 1.

Finally, while each of the claims have their own scope, Applicants respectfully submit that the arguments discussed above with respect to independent claim 1, also apply to independent claims 6, 11, 13, 18, 30-33, and 35-37. Therefore, for at least the reasons discussed above, the combination of Ratert and Chen fails to disclose, teach, or suggest, all of the elements of independent claims 1, 6, 11, 13, 18, 30-33, and 35-37. For the reasons stated above, Applicants respectfully request that this rejection be withdrawn.

Claims 2-4 and 23 depend upon independent claim 1. Claim 27 depends upon independent claim 11. Claims 14-17 depend upon independent claim 13. Claims 19-21 and 29 depend upon independent claim 18. Claim 34 depends upon independent claim 33. Thus, Applicants respectfully submit that claims 2-4, 14-17, 19-21, 23, 27, 29, and 34 should be allowed for at least their dependence upon independent claims 1, 11, 13, 18, and 33, respectively, and for the specific elements recited therein.

The Office Action also rejected claims 22, 26, and 28 under 35 U.S.C. §103(a) as being allegedly unpatentable as obvious over Ratert in view of Chen and deTorbal (U.S. Patent Publication No. 2004/0058678) (“deTorbal”). The Office Action took the position that Ratert discloses all the elements of the claims with the exception of “generating a handover request to the sub-terminal in the subscriber terminal in order to perform simultaneous handovers of the subscriber and the sub-terminal.” The Office Action then cited Chen and deTorbal as allegedly curing the deficiencies of Ratert. Applicants respectfully submit that said claims recite allowable subject matter for at least the following reasons.

Ratert and Chen are described above. DeTorbal describes a method and apparatus for facilitating handovers for a group of mobile radios. Advance handover notice is given to a target base station of a group of mobile radio connections that will subsequently be handed over to the target base station from a current serving base station. This advance notice permits the target base station to reserve resources and prepare for the handovers of the mobile radio connections. (See deTorbal at Abstract).

Claims 22, 26, and 28 depend upon independent claims 1, 11, and 13, respectively. As discussed above, Ratert and Chen does not disclose, teach, or suggest all of the elements of independent claims 1, 11, and 13. Furthermore, deTorbal does not cure the deficiencies in Ratert and Chen, as deTorbal also does not disclose, teach, or suggest, at least, “*the subscriber terminal and the at least one sub-terminal being in connection with the infrastructure simultaneously*,” as recited in independent claim 1, and similarly recited in independent claims 11 and 13 for at least the following reasons.

As described above, deTorbal describes a method and apparatus for facilitating handovers for a group of mobile radios. Specifically, mobile radios 28 travel as a group along a vehicle’s route and have active connections with cellular system 10 by way of serving base station A. Because all the mobiles on the vehicle move together as a group each one generates a handover request from base station A to base station B, as the vehicle moves away from base station A and towards base station B. (See deTorbal at paragraph 0020). As each of the mobile radios 28 are independent, and thus, generate independent handover requests, deTorbal fails to disclose, or suggest, a subscriber terminal and at least one sub-terminal, and thus, fail to disclose, or suggest, the aforementioned limitation of independent claim 1, and similar limitations of independent claims 11 and 13.

Thus, the combination of Ratert, Chen, and deTorbal does not disclose, teach, or suggest all of the elements of claims 22, 26, and 29. Additionally, claims 22, 26, and 28

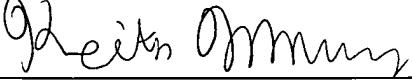
should be allowed for at least their dependence upon independent claims 1, 11, and 13, respectively, and for the specific elements recited therein.

For at least the reasons discussed above, Applicants respectfully submit that the cited prior art references fail to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-6, 11-23, and 26-37 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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